REMARKS

Reconsideration of the referenced application is respectfully requested in view of the foregoing amendments and the following remarks.

Status of the Application

Claims 2-18 are currently pending in the application. Claim 1 is cancelled, without prejudice, claims 2-12 were previously presented, and dependent claims 13-18 are new.

Claim 2 is amended to more fully describe the subject matter applicants consider to be an embodiment of their invention. Support for this amendment may be found at page 7, lines 31-35, of the application. No new matter is introduced into the claim by way of this amendment.

Summary of Office Action

A final Office Action dated November 13, 2003, rejects claims 1-3, 7 and 9-12 as anticipated by Vermeersch et al (EP 770,497) in view of Love (U.S. Patent 4,718,340).

According to the Office Action, Vermeersch teaches the method as claimed except for the removal of ink accepting layers by laser ablation. Love supplies the missing teaching by suggesting the desirability of removing ink accepting areas on a support by laser ablation, and then reusing the support.

The limitations in dependent claims 3, 7, 9 and 10 are said to be taught by Vermeersch alone. The Office Action advises that claims 11 and 12 are not specifically taught by either Vermeersch or Love, but it would have been obvious to one skilled in the art through routine experimentation to reuse the support of Vermeersch as modified by Love, to maximize cost savings.

Claims 4-6 are rejected as obvious over Vermeersch in view of Love, as applied above, and further in view of U.S. Patent 5,704,291 to Lewis. According to the Office Action, Love does not teach the use of a vacuum device or type of laser for ablating the ink accepting areas. Lewis, however, does teach using both when ablating ink-accepting areas. It would have been obvious to use the teaching of Lewis in the Vermeersch

process (as modified by Love) to prevent debris from interfering with the laser beams and providing efficient ablation of the ink-accepting area ablation

Claim 8 is rejected as obvious over Vermeersch and Love, as applied above, and further in view of EP 1,072,402 (Kita et al.) Neither Vermeersch nor Love teaches a base layer that includes a hydroxide of the metal. Kita, however, according to the Office Action, teaches a crosslinked hydrophilic comprising an oxide or hydroxide of titanium. The Office Action thus reasons that it would have been obvious, once provided with the method of Vermeersch as modified by Love, with an oxide and hydroxide of the metal in view of Kita.

The Office Action closes by acknowledging applicants' prior arguments (filed September 22, 2003) were considered, but not deemed persuasive. Applicants urged that the ink-accepting areas of Vermeersch could not be erased with a laser since the imaging material is non-ablating. However, the Office Action advises it is not apparent how a laser can ablate the imaging material disclosed by applicants, while the imaging material of Vermeersch cannot be ablated, when both utilize the same imaging materials.

The Office Action continues by noting, however, it is apparent that the laser ablation step cannot be the same as the laser exposure step. However, Love teaches that the erasing energy may be somewhat higher that imaging energy in order to sufficiently erase the ink-accepting areas. In view of this teaching by Love, the Office Action concluded, it would have been obvious to increase the laser energy to erase the ink-accepting areas of Vermeersch that were produced by lower laser energy.

The Rejections of Pending Claims 2-12

Applicants respectfully submit that independent claim 2, as amended, overcomes the rejections entered against the claims in the final Office Action, for the reasons that follow.

Amended claim 2 provides a method of lithographic printing with a reusable substrate. The method includes the steps of: (a) providing a substrate comprising a support and a base layer which contains a crosslinked hydrophilic binder and a metal oxide; (b) applying one or more layer(s) on the base layer, thereby obtaining an imaging material containing a non-ablative image-recording layer; (c) making a printing master

having ink-accepting areas by image-wise exposure of the imaging material to heat or light without substantially removing the image-recording layer and optionally processing the imaging material; (d) printing; (e) removing the ink-accepting areas from the printing master by laser ablation; and (f) repeating steps (b) through (d).

Thus, the claimed method now requires, among other limitations, that the imaging material on the base layer includes a non-ablative image-recording layer, that ink-accepting areas are formed by image-wise exposing the imaging material to heat or light with substantially removing the image-recording layer, and removing the ink-accepting areas by laser ablation.

In stark contrast to the claimed invention, and that of Vermeersch, Love provides a different image-forming system. In the Love system, selective portions of a very thin layer of hydrophobic material are removed using a laser beam, causing selective ablation, and providing ink-accepting areas. *See, e.g., col. 11, line 12-17 and col. 13, lines 20-30.* The Vermeersch (and claimed) systems are quire distinct from that used in Love. An image-forming layer comprising a hydrophilic binder and hydrophobic thermoplastic polymer particles is coated onto a base. On imaging, the thermoplastic polymer particles soften due to heating and, as a result, coagulate to form hydrophobic agglomerates in the hydrophilic layer. The surface of these agglomerated areas is rendered ink-accepting. Thus, unlike Love, ablation is not used in the process of providing the ink-accepting areas.

Indeed, Love teaches against the use of its methods in Vermeersch-type systems, and that of the claimed invention (non-ablative). Love states that the formation of a latent image does not depend on any photo-induced reaction, e.g., the hardening or softening of a hydrophilic or hydrophobic layer that would render the layer soluble or insoluble, e.g., ink-accepting. *See, e.g., col. 11, lines 47-55; col. 13, lines 34-37.* Instead, Love forms ink-accepting areas by laser ablation. This is distinct from the heat-induced agglomeration used in the Vermeersch system, and the claimed method in which ink-accepting areas are provided by image-wise exposure of the imaging material to heat or light without substantially removing the image-recording layer. This is recognized at page 4 of the final Office Action: "It is apparent though that the laser ablation step cannot be the same as the laser exposure step."

The Office Action attempts to address the deficiency of Love in noting that Love refers to the use of two different laser energy levels. *See col. 16, lines 16-35.* The mention of two energy levels, however, does not (and indeed cannot) contradict Love's teaching regarding its process—that the ink-accepting areas are formed by laser ablation. Indeed, all Love suggests is that greater laser energy levels may be needed to remove an ink-accepting layer formed using laser ablation. This does not, and indeed cannot, provide a basis for the alleged combination—the systems of Vermeersch and Love are simply too distinct to support the asserted combination. Laser ablation, used in Love, is not used to provide ink-accepting areas in either Vermeersch or the claimed method.

For all the foregoing reasons, applicants submit that every claim rejected based upon, at least, the asserted combination of Vermeersch and Love (i.e., claims 2-12), should be withdrawn. Further, new claims 13-18 define patentable subject matter, and should be passed to issuance.

Conclusion

The application is considered in good and proper form for allowance, and the Examiner is respectfully requested to pass this application to issue. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,

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